

RUSS, AUGUST & KABAT

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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA – WESTERN DIVISION

NEUROGRAFIX, a California
 corporation; WASHINGTON
 RESEARCH FOUNDATION, a not-for-
 profit Washington corporation,

Plaintiffs,

vs.

SIEMENS MEDICAL SOLUTIONS
 USA, INC., a Delaware corporation; and
 SIEMENS AKTIENGESSELLSCHAFT, a
 German Corporation,

Defendants.

Case No. 10-CV-1990 MRP (RZx)

[Assigned to The Honorable Mariana
 R. Pfäelzer]

**DECLARATION OF AARON G.
 FILLER, M.D., Ph.D., F.R.C.S., IN
 SUPPORT OF PLAINTIFFS'
 OPPOSITION TO SIEMENS'
 MOTION FOR PARTIAL
 SUMMARY JUDGMENT OF
 INDEFINITENESS OF
 "CONSPICUITY" IN CLAIMS 1, 3,
 7, 11, 12, 18, AND THEIR
 ASSERTED DEPENDENT
 CLAIMS IN U.S. PATENT NO.
 5,560,360**

First Amended Complaint Filed:
 July 30, 2010

1 I, Aaron G. Filler, declare and state as follows:

2 1. I am one of the named inventors of United States Patent No.
3 5,560,360, entitled "Image Neurography and Diffusion Anisotropy Imaging." I
4 am a practicing neurosurgeon, and I perform and interpret neural imaging on a
5 regular basis. I have done so for the last 15 years. I regularly research and
6 develop new pulse sequences for imaging nerves. In clinical practice, I have read
7 and prepared interpretations on more than 10,000 neural images of various types.
8 I also have an understanding of how MRI machines operate, both in a basic sense
9 as well as in the particular use of imaging nerves. I have actually built handmade
10 MRI hardware for use in advanced MRI imaging studies. I have personal
11 knowledge of the facts set forth herein, and if called upon to testify, could and
12 would testify competently thereto.

13 2. Attached hereto as **Exhibit 15** is a true and correct copy of the cross
14 sectional image used by Dr. R. Nick Bryan in Figure 2 of Exhibit C to Dr. Bryan's
15 Expert Report, dated July 22, 2011. The red region of interest is a region of
16 interest selecting the non-neural tissue. I have also added arrows identifying the
17 nerves shown on the left side of the image and a measurement of the signal
18 intensity of the air in the image.

19 3. Attached hereto as **Exhibit 16** is a true and correct copy of a cross
20 sectional image of the low pelvis showing the sciatic nerves in cross section (pane
21 A) and an example of the region of interest select taught by the '360 patent. In
22 pane A, I have provided arrows illustrating the sciatic nerves shown on the image.
23 In pane B, I have zoomed in on one the nerves and circled approximately 2
24 centimeters of surrounding non-neural tissue. In panes C and D, the nerve and
25 non-neural tissue regions of interest have been highlighted for clarity.

26 4. Attached hereto as **Exhibit 17** is a true and correct copy of images
27 taken from common atlases used by radiologists and neuroradiologists. The
28 source of each image is indicated below each image.

RUSS, AUGUST & KABAT

5. Attached hereto as **Exhibit 18** is a true and correct copy of the image I used in Figures 5, 6, and 7 of my Rebuttal Expert Report, served on February 1, 2011 in this case. This image shows a region of interest selecting the entire area of lung tissue imaged.

6. Attached hereto as **Exhibit 19** is a true and correct copy of multiple images from a study of the neck region of a patient. Pane C is the image used by Dr. Bryan in Figure 2 of Exhibit C to Dr. Bryan's Expert Report, dated July 22, 2011. The red arrow in pane C illustrates the pixel I selected. As can be seen in panes A, B, D, E, F, G, and H, the DICOM software automatically puts an orange plus sign on the same pixel in other images showing different views of the same region.

7. Attached as **Exhibit 20** is a true and correct copy of multiple images using data similar to that used by Dr. Bryan in Figure 3 of Exhibit C to his Expert Report, dated July 22, 2011. Pane A is the image as generated by the MRI machine. In pane B, I have selected a relatively bright pixel in the nerve to begin using the built-in thresholding algorithm. I used Osirix DICOM software. In pane C, I have lowered the "Interval" (i.e., the threshold level) until all of the nerve tissue around the point I selected has been included in the region of interest. In pane D, the Interval was lowered one step too far and the region of interest now includes non-neural tissue.

I declare under penalty of perjury pursuant to the laws of the United States that the foregoing is true and correct.

Executed this 12th day of September, 2011 at Los Angeles, California.

By: 

Aaron G. Filler, M.D., Ph.D.,
F.R.C.S.